

Honorable Commissioners,

Power lines are single conductors. Single conductors can be used as transmission lines, but only when it is understood that they will actually be radiating. Often, most of the transmitted power has been radiated in the single conductor before it has even reached the "antenna." This is often considered in the design of such a system, although these designs have been fading from use since the 1960's.

This is in contrast to various types of two-conductor transmission lines that efficiently attenuate radiation throughout their length, either by shielding in the case of coax cable, or by canceling-out the radiation in the case of "twin lead." This has been the direction of modern antenna systems.

It is abhorrent to think that the transmitted power of single-conductor, Open Wire BPL will be increased to overcome all the power that is "lost" as radiation, as necessary, to assure a usable signal at the far end of the wire. Being that digital communications (square wave modulation) is the type of signal that would be carried only aggravates the problem, assuring that the radiated noise and hash would be continuous from the lowest RF frequencies well into the VHF range.

Statistics may be used to model the level of noise at various frequencies and distances, but given the variable nature of propagation at these frequencies, the modeling is sure to be inaccurate. There are a hundreds of services that rely on ionospheric propagation, which is already challenging enough. It would be crime if Open Wire BPL were allowed to increase the already-troubling background noise on these shortwave frequencies, which are the frequencies on which most of BPL's hash would radiate.

Since BPL was first petitioned, there has been vast development and deployment of other wireless and Wi-Fi services. Many of these access points could sit atop power towers, especially the ones that sit atop enviable mountain peak locations, which look over vast expanses of rural America. If the petition for Open Wire BPL were turned down, the interested parties would not be without other more robust - and less hideous - options for providing wireless internet services.

Thank you for accepting my comment.

Best luck,
Neil / wb2cir